WMDT Charge

1 Evaluate a range of water Management tools

2 Develop a Water Management Strategy for Stage 1 including the framework for the EWA

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Framework Definition

- An investment strategy for assets to be applied in Stage 1
- The sharing and operating principles that govern these assets.
- The assurances needed to allow reasonable application and support of the assets.

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Early Stage 1 Assets
Games 4 & 5

- South Delta Program - 8,500 cfs, Temporary barriers in.
- JPOD
- E/I, In-Delta AFRP Variances
- Ground Water (400 TAF; 40 TAF/Mo. in-out)
- Shasta Enlargement (50 TAF)
- Water Purchase (NOD, SOD, spot market) -- $40m/yr.
- San Luis Storage Borrowing
- Unused System Capacities
- Demand Shifting (100 TAF/yr)

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Late Stage 1 Assets
Game 2

- Expanded Banks - 10,300 cfs
- JPOD
- E/I, In-Delta AFRP Variances
- Ground Water (600 TAF; 60 TAF/Mo. in-out)
- Shasta Enlargement (50 TAF)
- Webb Tract Storage (120 TAF, 2,000 cfs. in-out)
- Bacon+ Storage/Connected (200 TAF, 4,000 cfs in; 2,000 cfs. out)
- ET Reductions on Delta Islands (60TAF / year)
- Water Purchase (NOD, SOD, spot market) -- $30m/yr.
- San Luis Storage Borrowing
- Unused System Capacities
- Demand Shifting (100 TAF/yr)

Essential EWA Assets

- A monetary account for water purchases
  - $40M to $50M at start of Stage 1- $20M to $30M at end of Stage 1
- Ability to purchase and transfer water at a reasonable cost and at needed times
  - Up to 100 TAF Sacramento River System
  - Up to 150 TAF San Joaquin River System
  - Up to 250 TAF in Export Areas
- Ability to Vary Standards
- Adequately screened project water diversion intakes in south Delta
- JPOD with no State and federal sublimits

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Essential EWA Assets (con't)

- Access to storage upstream and south of Delta and Delta Islands
  - Utilize available storage in existing reservoirs; **San Luis is key** with other SWP and CVP storage.
  - Late in Stage 1 need storage closer to export pumps for flexibility. Wedd Tract and Bacon/others Islands with a direct connection to bacon and CCF
- Increased permitted export capacity
  - Increased Banks 8,500 cfs pumping window In early Stage 1.
  - Expand Banks permitted capacity to 10,300 cfs by end of Stage 1
- Access groundwater
  - At least 600 TAF in SOD area.
  - Facilities to increase recharge and extraction rates

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What Decisions are Needed?

A partial list:

1. Default operational rules
2. Sharing future export/storage capacity increases
3. Sharing of pumping above default rules
4. Environmental priorities for existing facilities
5. Decision making authority
6. Regulatory certainty
7. Who pays
8. Carryover of EWA from year to year
9. Other uses of ecosystem water
10. Initial funding and amount and type of EWA

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General Conclusions

- For a given amount of water, EWA could be more effective in reducing fish entrainment than prescriptive standards
- For a given level of protection, EWA could allow more exports than prescriptive standards
- Effectiveness of EWA would be greater with larger and greater diversity of assets.
- Various assets provided greater values than others.

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General Conclusions (con't)

- Uncertainties in application of EWA will require experiments in Stage 1.
- Burden of fish population recovery should not be solely that of EWA.
- EWA provides synergies of benefits between upstream and Delta Actions.
- EWA could provide incidental benefits to water supply and water quality.